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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,702	10/16/2003	Hyun-kwon Chung	1793.1046	6760
49455	7590	11/26/2008	EXAMINER	
STEIN, MCEWEN & BUI, LLP 1400 EYE STREET, NW SUITE 300 WASHINGTON, DC 20005			THOMAS, JASON M	
			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/685,702	Applicant(s) CHUNG ET AL.	
	Examiner Jason Thomas	Art Unit 2423	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 10/685702.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see pgs. 2-5, filed July 29th, 2008, with respect to the rejections of claims 1, and 3-12 under 35 U.S.C. Section 103(a), have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground of rejection is made in view of Lamkin et al., U.S. Pat. No. 7,346,920 B2, Hirose et al., U.S. Pat. No. 6,973,619 B1, Perlman et al., U.S. Pat. No. 6,141,693 and Hodgkinson, U.S. Pre- Grant Pub. No. 2002/0126142 A1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lamkin et al., U.S. Pat. No. 7,346,920 B2, (hereinafter Lamkin), in view of Hodgkinson, U. S. Pre- Grant Pub. No. 2002/0126142 A1, (hereinafter Hodgkinson), Hirose et al., U.S. Pat. No. 6,973,619 B1, (hereinafter Hirose), and Nielsen, U.S. Pat. No. 5,897,644, (hereinafter Nielsen).

Regarding claims 1 and 3: Lamkin discloses an apparatus which processes audio and/or video (AV) data in an interactive mode using a markup document, comprising: an AV playback engine which decodes the AV data to output an AV picture (see [col. 5, ll. 44-59], [col. 7, ll. 62-67] for providing enhanced video by using audio/video data and a markup document to enable a more interactive and personalized experience when playing the DVD-Video/Audio).

Lamkin however does not teach an enhanced audio and/or video (ENAV) engine which interprets the markup document to read size information included in the markup document and to obtain a source markup picture, transforms the source markup picture into a markup picture according to the size information, combines the markup picture and the AV picture, and outputs an interactive picture including the markup picture and the AV picture.

Hodgkinson teaches an ENAV engine by demonstrating the ability to read size information included within the markup document and to generate and transform the source markup picture according to the size information, combining the markup picture and AV picture, and then outputting an interactive picture including the markup picture and the AV picture (see [7], [26]).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to provide a means of embedding video within a markup document, predefined to provide a particular size window for the video, to be played within the markup picture, as taught in Hodgkinson, when providing an

enhanced DVD that provides an interactive picture, as taught in Lamkin, because it is well known in the art to allow video to be embedded in markup documents (see [3]).

Hodgkinson however, does not teach where the size information includes device-aspect-ratio information.

Nielsen teaches a markup document which includes aspect ratio information within the document which can be used in a decision procedure to determine if the markup picture needs its dimensions adjusted to fit a specific area as indicated by the size of a display device (see [cols. 6-7, ll. 63-53] for attributes within a HTML markup which define an aspect ratio and fitting the canvas, or markup picture).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include an aspect ratio within the markup document, as taught in Nielsen, when providing a means of determining how to best output a markup document where the determination is made based on the display attributes, as taught in Hirose, because this is another way to have information available within the markup document to reference such that a determination can be made, based on display device information, regarding the proper output of the markup document (see [col. 7, ll. 47-53]).

Nielsen however does not teach where the aspect ratio is that of a device-aspect-ratio.

Hirose teaches obtaining information which describes a device used to display visual information (terminal or any device with visual screen) to provide the criteria needed for obtaining a display of a markup document according to the capabilities of the device (see [cols. 3-4, ll. 20-3], [col. 12, ll. 7-26] for obtaining information about the attributes of a terminal which include the screen size, aspect ratio and number of colors, which are used to determine the best markup picture to be sent for viewing on the device).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to reference information used to describe a device used to display markup information, as taught in Hirose, when providing markup information to add interactivity, as taught in Hodgkinson, because due to the use differing terminal devices such as PDAs, PCs, TVs or other types of devices with varying sizes used to receive and display markup documents, there is a need for outputting markup documents in a form adapted to the various attributes of each unique device (see [col. 1, ll. 1-16]).

Regarding claim 4: The combined teachings of Lamkin, in view of Hodgkinson, Hirose and Nielsen, teach the apparatus of claim 1, wherein the ENAV engine obtains the device-aspect-ratio information which is information on an aspect ratio of a screen of a target display device intended to display the markup document in the interactive mode (see [rejection of claims 1 & 3]), according to a design of a markup document maker (see Nielsen [abstract])

where the purpose of transformation is to maintain a page layout similar to that of the original).

Regarding claim 5: The combined teachings of Lamkin, in view of Hodgkinson, Hirose and Nielsen, teach the apparatus of claim 1, wherein the ENAV engine parses the device-aspect-ratio information which is written in the markup document using a property of a tag (see [col. 7, ll. 1-12] where a parsing mechanism is used to obtain aspect ratio information contained in a tag; see also Hirose [cols. 3-4, ll. 20-3], [col. 12, ll. 7-26] where it would be beneficial to obtain the device-aspect-ratio information).

Regarding claim 6: The combined teachings of Lamkin, in view of Hodgkinson, Hirose and Nielsen, teach the apparatus of claim 1, wherein the ENAV engine transforms the source markup picture into the markup picture with a predetermined aspect ratio according to the device-aspect-ratio information of the markup document (see Hodgkinson [7], [26] for transforming a source markup picture; see also Nielsen [col. 7, ll. 1-12] where the markup document can obtain aspect ratio information to guide the creation of a markup picture; see also Hirose [cols. 3-4, ll. 20-3], [col. 12, ll. 7-26] for obtaining information about the attributes, which include the aspect ratio, of a terminal display to determine the best viewing on the device

Regarding claim 7: The combined teachings of Lamkin, in view of Hodgkinson, Hirose and Nielsen, teach the method of claim 1, wherein the obtainment of the markup picture comprises transforming a source markup

picture into the markup picture with an aspect ratio of 4:3 or 16:9 according to the device-aspect-ratio information, the source markup picture being obtained from the markup document (see Hodgkinson [7], [26] for a markup document used to display a AV picture and transforming the markup document to accommodate the AV picture; see also Hirose [fig. 12], [abstract], [col. 2, ll. 59-63], [col. 3, ll. 59-67] adapting a webpage to fit a terminal's aspect ratio which can be 4:3, 16:9 in addition to other common aspect ratios; see also Nielsen [col. 7, ll. 1-53] where the markup code can be the source of a markup picture which is resized after a determination that the dimensions need adjustment to fit a desired dimension).

Regarding claim 8: The combined teachings of Lamkin, in view of Hodgkinson, Hirose and Nielsen, teach the method of claim 1, wherein the ENAV engine scales a source markup picture to output the markup picture corresponding to the device- aspect-ratio information in response to information on an aspect ratio of a destination device being different from the device-aspect-ratio information, the destination device substantially displaying the markup document and the device-aspect-ratio information being data including information on an aspect ratio of a target display device intended to display the markup document in the interactive mode (see Hirose [fig. 12], [abstract], [col. 2, ll. 59-63], [col. 3, ll. 59-67] for displaying a markup picture adapted to a device's aspect ratio; see also Nielsen [col. 7, ll. 1-53] where a markup picture can be resized (scaled) after a determination that the dimensions need adjustment to fit

a desired dimension; see also Hodgkinson [7], [26] for a ENAV engine capable of generating a video image in a markup).

Regarding claim 9: Lamkin discloses an apparatus for processing a markup document in an interactive mode (see [col. 5, ll. 44-59], [col. 7, ll. 62-67] for providing enhanced video by using audio/video data and a markup document to enable a more interactive and personalized experience when playing the DVD-Video/Audio) comprising a controller to output a markup picture of the markup document and a video picture of an audio and/or video data in the interactive mode (see [col. 4, ll. 57-67], [col. 9, ll. 4-21], [col. 7, ll. 62-67] for controllers such as presentation engine capable of reading and presenting the HTML content and a DVD firmware/navigator capable of reading and presenting DVD content in an enhanced and interactive mode).

Lamkin does not teach a markup transformer which transforms the markup picture according to device-aspect- ratio information corresponding to the markup document, the device-aspect-ratio information being data including information on an aspect ratio of a target display device intended to display the markup document.

Hodgkinson teaches the ability to read size information included within the markup document and to generate and transform the source markup picture according to the size information (see [7], [26]).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to predefine a particular size window for the video, to be

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played within the markup picture, as taught in Hodgkinson, when providing an enhanced DVD that provides an interactive picture, as taught in Lamkin, because it is well known in the art to allow video to be embedded according to a particular size in markup documents (see [3]).

Hodgkinson however, does not teach where the size information includes device-aspect-ratio information.

Nielsen teaches a markup document which includes aspect ratio information within the document which can be used in a decision procedure to determine if the markup picture needs its dimensions adjusted to fit a specific area as indicated by the size of a display device (see [cols. 6-7, ll. 63-53] for attributes within a HTML markup which define an aspect ratio and fitting the canvas, or markup picture).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include an aspect ratio within the markup document, as taught in Nielsen, when providing a means of determining how to best output a markup document where the determination is made based on the display attributes, as taught in Hirose, because this is another way to have information available within the markup document to reference such that a determination can be made, based on display device information, regarding the proper output of the markup document (see [col. 7, ll. 47-53]).

Nielsen however does not teach where the aspect ratio is that of a device-aspect-ratio.

Hirose teaches obtaining information which describes a device used to display visual information (terminal or any device with visual screen) to provide the criteria needed for obtaining a display of a markup document according to the capabilities of the device (see [cols. 3-4, ll. 20-3], [col. 12, ll. 7-26] for obtaining information about the attributes of a terminal which include the screen size, aspect ratio and number of colors, which are used to determine the best markup picture to be sent for viewing on the device).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to reference information used to describe a device used to display markup information, as taught in Hirose, when providing markup information to add interactivity, as taught in Hodgkinson, because due to the use differing terminal devices such as PDAs, PCs, TVs or other types of devices with varying sizes used to receive and display markup documents, there is a need for outputting markup documents in a form adapted to the various attributes of each unique device (see [col. 1, ll. 1-16]).

Regarding claim 10: The combined teachings of Lamkin, in view of Hodgkinson, Hirose and Nielsen, teach the apparatus of claim 9, wherein the controller embeds the video picture in the markup picture according to embedding information of the markup document (see Hodgkinson [3], [7], [26] for embedding the video using a controller such as a plug-in function).

Regarding claim 11: The combined teachings of Lamkin, in view of Hirose, Perlman, Nielsen and Hodgkinson, teach the method of claim 1, wherein

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the device-aspect-ratio information is included in the markup document (see Hirose [fig. 12], [col. 3, ll. 59-67], [abstract] for gathering information to generate a display control information so as to display in a form adapted to a display device; see Nielsen [col. 7, ll. 1-13] for including aspect ratio information within the markup document).

Regarding claim 12: The combined teachings of Lamkin, in view of Hirose, Perlman, Nielsen and Hodgkinson, teach the computer readable medium of claim 38, wherein the markup transformer scales the markup picture according to the device-aspect-ratio information in response to information on an aspect ratio of a destination device displaying the markup document being different from the device-aspect-ratio information (see Hirose [fig. 12], [abstract], [col. 2, ll. 59-63], [col. 3, ll. 59-67] for displaying a markup picture which is generated from a source code in a form adapted to a device's aspect ratio; see Nielsen [col. 7, ll. 1-53] where a markup picture is resized after a determination that the dimensions need adjustment to fit a desired dimension; see also Hodgkinson [6], [7] for scaling a markup picture window or the video data to fit the video properly); and outputting the markup picture as is in response to the information on the aspect ratio of the destination device corresponding to the device-aspect-ratio information (see Nielsen [col. 7, ll. 1-33] where if a markup document with a set dimension fits within the area available, the function ends and it is left as is; see also Hirose [abstract], [col. 3, ll. 59-67] where the adaptation criteria is based on the aspect ratio of the display device).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Thomas whose telephone number is (571) 270-5080. The examiner can normally be reached on Mon. - Thurs., 8:00 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Koenig can be reached on (571) 272-7296. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

J. Thomas

/Andrew Y Koenig/
Supervisory Patent Examiner, Art Unit 2423